SUBJECT INDEX

a_w—See Water activity
Acetic acid in bread 591
Acetoin to assay microbial contamination 59
Air-drying of grain 701
Alginates 477
Amino groups and iron complexation 265
Analysis, near infra-red 191
Anchovies, chemical and sensory assessments on 73
Anthocyanin stabilization 159
Antioxidants 501, 515
Apple
  peroxidase, heat stability of 391
  storage and modified-atmosphere packaging 659
Ascorbic acid degradation during blanching 249, 273
Aseptic processing of tomato paste 59

B.E.T. equation 219
B.H.A. 501
B.H.T. 501
Beef, cooking and weight loss of 49
Beet pigments 571
Betanin 571
Bighead 637
Blanching, ascorbic acid degradation during 249, 273
Blood plasma, viscosity of 145
Borneo tallow nut 67
Botulinum toxin, heat denaturation of 293
Bread, sour wheat 591
Breadmaking flours, evaluation of 309
Bromine derivatives for iodine-bromine numbers 339
Browning 433, 477, 599, 643, 653

Cabrales cheese 525
Cadaverine in fish spoilage 385, 409
Canned
  fish, spoilage of 345, 409
  prawns, carotenoids in 569
Capsicum annuum 225
Carboxyl groups, iron complexation to 265
Carboxymethylcellulose, in minced fish products 123
Carotenoids
  in prawns 569
  in processed mango 451
Carrageenan in minced fish products 123
Cassava, detoxication 41
Catechol 653
Caurie equation 219

Cheese
accelerated ripening 355
extrusion cooking 607
frozen storage 525
soft 135
Chemiluminescence 93
Chilling of fish 637
Chocolate milk, physical stability of 279
Cis-cis polyunsaturated fatty acids 669
Clostridium botulinum toxin, heat denaturation of 293
Coagulant concentration in tofu production 29
Cocoa powder and chocolate milk 279
Cold shock in fish 637
Confectionery, sweating of 163
Controlled atmosphere storage of apples 659
Cooking of beef 49
Crisps, potato 233, 535
Cryoprotective effect 123
Cyanide, detoxication of cassava 41

Dates, pickling of 243
Dehydration
and sulphur dioxide 433
in potato crisp manufacture 535
Design for flame sterilization 3
Desorption isotherms 219
Diacetyl to assay microbial contamination 59
Differential scanning calorimetry 139, 299
Diffusion coefficients in grain drying 701
Dimethylamine in fish spoilage 385
Drying—See also Dehydration
of grain 701
Dough expansion test 309

E.R.H. measurement 377
Eating quality of pig livers 255
Economics of flame sterilization 3
Electron spin resonance 163
Emulsification in processed cheese 607
Encapsulated enzymes 355, 707
Energy conservation in oil refining 209
Enzymes, encapsulated 355, 707
Enzymic losses during blanching 249
Equilibrium relative humidity measurement 377
Equi-sweet concentrations, determination of 627
Ethanol extraction of red peppers 225
Exothermic transition in soya isolate 139
Extraction solvent 225

Extrusion cooking
of cheese 607
of protein-alginate mixtures 477
thiamine degradation 549

Fasting, effect on quality of pig livers 255
Fat
and fatty acid content 669
bloom in confectionery 163
distribution, and effect on cooking of meat 49
solid, determination 491
uptake during frying
of minced fish 123
of potato slices 233
—water determination in meat products 169
Fermented
dates 243
fish products 105, 115
Filtration pressure in tofu production 29
Fish
canned, spoilage of 345, 409
cold shock in 637
fermented products 105, 115
minced 123
spoilage of 385
Flame sterilization 3
Flour, breadmaking, evaluation of 309
Frozen
cheese 525
minced fish 123
potatoes 273
sardines 77
Frying of potato slices 233
Functional properties of
blood plasma proteins 145
ham 461
hot-boned poultry meat 413

Gallic acid 501
Gaplek 41
Gas chromatography, assay of volatile amines 509
Gelation of protein 607
Gibbs-Duhem equation 563
Glutamic acid reactivity in extruded protein 477
Gluten 477
Grain, air drying of 701

Ham, composition and sensory characteristics 461
Heat
  denaturation of *Clostridium botulinum* toxin 293
  exchangers, energy conservation in 209
  processing in tofu production 23
  stability of
    apple peroxidase 391
    chocolate milk 279
  transfer in flame sterilization 3
  treatment of oats 299
High vacuum flame sterilization 3
Histamine in fish spoilage 385, 409
Hot-boning of poultry 413
Hydration characteristics of soy protein isolate 153
Hydrocolloids 123

Illipe nut 67
Iodine-bromine numbers 339
Iron availability and complexation 265
Irradiated food, identification of 93
Isoenzymes 391
Isosteric heats 219
Isotherms, water sorption, of soybeans 335

Kinetics of
  ascorbic acid degradation 249
  ethanol extraction 225

Lactic acid
  bacteria
    in fermented fish products 105, 115
    in tomato paste 59
  in bread 591
Leakage of cans 345
Lecithin vesicles and enzyme encapsulation 707
Lipase
  deactivation in milk 35
  of oats 299
Liposome-encapsulated enzymes 355
Liver, pig 255
Loaf quality 591

Maceration of soybeans 15
Maillard browning 433, 643
Mangifera indica 451
Mango 451
Manihot esculenta 41

Meat
  cooking and weight loss of 49
  fat and water determination in 169
Melanoidins 643
Microstructure
  of cheese 607
  of potato 535
Milk, thermal deactivation of bacterial lipase in 35
Millet, pearl, fermented 173
Modified atmosphere packaging of
  apples 659
  peas 417
  potato 515
Moroccan canned fish, spoilage of 345
Mould
  in pecans 677
  resistance of sour wheat bread 591
Multidimensional scaling 693
Mushrooms, vacuum-cooling of 599

Near infra-red analysis 191
Nuclear magnetic resonance spectroscopy 169
Nutritional labelling 669

Oat processing 299
Oil
  iodine-bromine numbers of 339
  refining, energy conservation in 209
  uptake during frying of
    minced fish 123
    potato slices 233, 535
Oilseed analysis 67
Oleoresins from red peppers 225
Orange juice stabilization 159

P.E.C. method for a_w measurement 485
Palm oil refining 209
Panel consensus 627
Parboiled rice 219
Peas, quality of 417
Pecans, quality of 677
Pennisetum typhoides 173
Peppers, red, ethanol extraction of 225
Peroxidase 391
Physical strength of ham 461
Pickling of dates 243
Pig livers, quality of 255
Polyols to measure e.r.h. 377
Polyphenol oxidase 653

Potato
blanching. ascorbic acid degradation during 249, 273
slices, frying of 233, 535
modified atmosphere packaging and vacuum packaging 515
Poultry
hot-boning of 413
meat, water binding 683
Prawns, carotenoids in 569
Processed cheese, extrusion cooking 607
Protein
content and yield of tofu from soybeans 15, 23, 29
extractability of turkey meat 683
interactions in blood proteins 145
networks in chocolate milk 279
quality of sardines 77
Psychophysics 399
Pulse radiolysis 501
Putrescine in fish spoilage 385, 409

Quality of
apples 659
flame-sterilized products 3
mangetout peas 417
mushrooms 599
pecans 677
potato 515
sour wheat bread 591

Rabadi 173
Ragi 41
Rapid microbiological assays 59
Red peppers, ethanol extraction of 225
Regeneration of apple peroxidase 391
Rheology of chocolate milk 279
Rice, parboiling of 219
Rigor development in fish 637
Ross equation 563
Rye bread, sensory analysis of 693
Rye-sour culture 591

Salt, effect on turkey meat 683
Salting of anchovies 73
Sardina pilchardus 77
Sardines, protein quality of 77
Saudi Arabian pickled dates 243
Scombroid fish, higher amines in 409
Sea foods, volatile amines in 509

Sensory
analysis
of anchovies 73
of mined fish products 123
of sugar-acid mixtures 399
profiling 461, 669
Shape factors in drying 701
Shelf-life of
mangetout peas 417
mushrooms 599
Shorea 67
Silken tofu 15, 23, 29
Sour wheat bread 591
Soy isolate
exothermic transition in 139
hydration characteristics of 153
Soya protein, extrusion 477
Soybeans
tofu from 15, 23, 29
water sorption isotherms 335
Soymilk in soft cheese production 135
Spectroscopy, near infra-red 191
Spermidine and spermine in fish spoilage 385, 409
Spices, irradiated, identification of 93
Spoilage of
canned fish 345
stored fish 385
Sucrose standard 627
Sulphite 433, 643, 653
Sulphocatechol 653
Sulphur dioxide 433, 643, 653
Sulphydryl groups in iron complexation 265
Sweeteners 627
Sweetness
intensity 627
of sugar-acid mixtures 399

Take-away meals 669
Tannic acid in anthocyanin stabilization 159
Tapé ketela 41
Taste of sugar-acid in mixtures 399
Texture of
blanched potatoes 273
tofu 15, 23, 29
Thermally processed canned fish 345
Thermoluminescence 93
Thermostability of
bacterial lipase 35
thiamine 549

Thiamine degradation 549
Tofu 15, 23, 29
Toxins, botulinum, heat denaturation of 293
Triglyceride determination 491
Trimethylamine
  assay 509
  in fish spoilage 385
Turkey meat, effect of salt and pH on 683
Tyrosinase 653

U.H.T. treatment, lipase deactivation by 35
Ultra-high temperature treatment, lipase deactivation by 35
Ultrasonic velocity measurements of fat content 491

Vacuum cooling 599
Vacuum packaging of potato 515
Vegetable dehydration 433
Visco-elasticity of ham 461
Viscosity of blood plasma proteins 145
Volatile amines in sea foods 509

Water
  activity
    and Ross equation 563
    measurement 377, 485
  binding and holding capacity 683
  sorption isotherms of soybeans 335
Weight loss in cooking 49

Xanthan in minced fish products 123

Yeasted dough, expansion test 309

REVIEW PAPERS INDEX

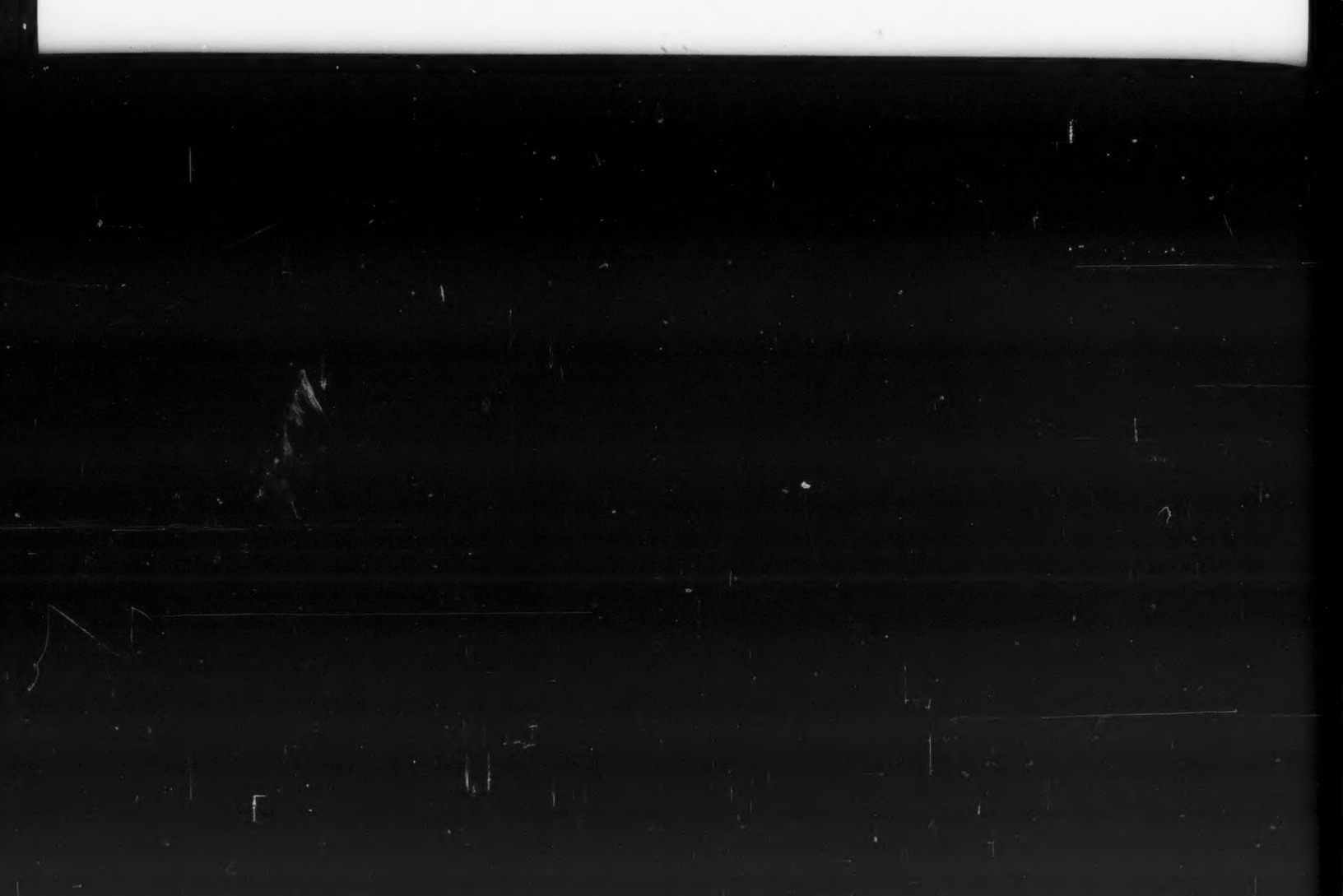
Flame sterilization 1
Near infra-red analysis of foods 191
Chemistry of sulphur dioxide in vegetable dehydration 433

BOOK REVIEW INDEX

Advances in Cereal Science and Technology, Vol. 8 184
Advances in Food Research, Vol. 30 88
Bergey's Manual of Systematic Bacteriology, Vol. 2 580
Biological Reference Materials 315
Biotechnology of Marine Polysaccharides 423
Cheese Starters: Development and Application of the Lewis System 727

Chemical Changes in Food During Processing 323
Chemistry and Physics of Baking 89
Citrus Fruits and their Products 88
Colour Atlas of Food Quality Control 83
Concentration and Drying of Foods 179
Detergency: Theory and Technology 585
Developments in Food Proteins, Vol. 4 88
Electromagnetic Radiation Properties of Foods and Agricultural Products 85
Engineering and Food 86
Engineering Properties of Foods 425
Enzymes and their Rôle in Cereal Technology 582
Evaporation, Membrane Filtration and Spray Drying in Milk Powder and Cheese Production 575
Fat-Soluble Vitamins 316
Food Analysis: Principles and Techniques, Vol. 4 582
Food Composition and Nutrition Tables, 1986/87 329
Food Irradiation 185
Food, Nutrition and the Young Child 84
Food Packaging and Preservation 317
Foodborne Microorganisms and their Toxins 576
Foreign Bodies in Foods 316
Fundamentals and Applications of Freeze Drying 184
Fundamentals of Dough Rheology 579
General Microbiology 327
History of Food Preservation 328
History of Scurvy and Vitamin C 577
Insect Management for Food Storage and Processing 184
Institutional Catering; Food Inspection 185
Instrumental Analysis in the Biological Sciences 427
Ion Chromatography 428
Machinery Adhesives for Locking, Retaining and Sealing 423
Modern Control Techniques for the Processing Industries 178
Modern Food Microbiology 325
Modern Methods in the Analysis and Structural Elucidation of Mycotoxins 583
Modern Methods of Food Analysis 322
Near Infrared Spectroscopy in Food Analysis 426
Nestlé Research News 1984/85 184
Nutrient Adequacy: Assessment Using Food Consumption Surveys 424
Nutrition and Aging 725
Nutritional and Toxicological Aspects of Food Safety 320
Nutritional and Toxicological Significance of Enzyme Inhibitors in Food 725
Oats: Chemistry and Technology 318
Packaging: Specifications, Purchasing and Quality Control 728
Powder Surface Area and Porosity 181
Principles of Cereal Science and Technology 81
Product Testing and Sensory Evaluation of Foods 177
Protein Tailoring for Food and Medical Uses 181
Quality of Frozen Foods 321
Recommendations for the Processing and Handling of Frozen Foods 586

Sensory Evaluation of Food 183
Solar Dryers: their Rôle in Post-Harvest Processing 82
Traditional Foods 581
United States Food Laws, Regulations and Standards 324
Vitamin A Deficiency and its Control 429
Vitamin Deficiency in the Elderly 87



Volume 22, Number 1, February 1987

Editorial 1

Review

P. S. Richardson
Flame sterilization 3

C. G. Beddows and J. Wong
Optimization of yield and properties of silken tofu from soybeans. I. The water: bean ratio 15

C. G. Beddows and J. Wong
Optimization of yield and properties of silken tofu from soybeans. II. Heat processing 23

C. G. Beddows and J. Wong
Optimization of yield and properties of silken tofu from soybeans. III. Coagulant concentration, mixing and filtration pressure 29

A. R. Bucky, D. S. Robinson and P. R. Hayes
Enhanced deactivation of bacterial lipases by a modified UHT treatment 35

M. B. Arihantana and K. A. Buckle
Cassava detoxication during tapé fermentation with traditional inoculum 41

D. Burfoot
Effect of thickness and location of minced fat on cooking times and weight losses of composite beef joints 49

C. G. Mallidis and F. Samaras
A simple, rapid and sensitive method for monitoring contamination of aseptically processed tomato paste 59

Technical notes

S. J. Kershaw
Heterogeneity in commercial contractual samples of illipe nut (*Shorea* spp.) 67

B. Filsinger, E. Sisti and N. J. Bergamaschi
Chemical and sensory assessments in ripened anchovies 73

Mª. P. Navarro, A. Mª. Castrillón and G. Varela
Effect of frozen storage on protein quality of sardines 77

Book reviews 81

Volume 22, Number 2, April 1987

Editorial 91

L. Heide and W. Bögl
Identification of irradiated spices with thermo- and chemiluminescence measurements 93

M. R. Adams, R. D. Cooke and D. R. Twiddy
Fermentation parameters involved in the production of lactic acid preserved fish–glucose substrates 105

D. R. Twiddy, S. J. Cross and R. D. Cooke
Parameters involved in the production of lactic acid preserved fish–starchy substrate combinations 115

D. J. B. da Ponte, J. P. Roozen and W. Pilnik
Effects of iota carrageenan, carboxymethyl cellulose and xanthan gum on the stability of formulated minced fish products 123

O. C. Aworth, B. A. Adedeji and E. C. Nwanekezi
Effect of partial substitution of cow's milk with soymilk on yield and quality attributes of West African soft cheese 135

P. R. Sheard, D. A. Ledward and J. R. Mitchell
Post-denaturational exothermic transition in soya isolate 139

N. K. Howell and R. A. Lawrie
Functional aspects of blood plasma proteins. V. Viscosity 145

Technical notes

M. C. López de Ogara, A. M. R. Pilosof and G. B. Bartholomai
Effect of solutes on the hydration characteristics of soy protein isolate 153

E. Maccarone, A. Maccarrone and P. Rapisarda
Colour stabilization of orange fruit juice by tannic acid 159

T. Tabouret
Detection of fat migration in a confectionery product 163

J. P. Renou, A. Briguet, Ph. Gatellier and J. Kopp
Determination of fat and water ratios in meat products by high resolution NMR at 19.6 MHz 169

Neerja Dhankher and B. M. Chauhan
Preparation, acceptability and B vitamin content of *rabadi*—a fermented pearl millet food 173

Book reviews 177

Errata 187

Volume 22, Number 3, June 1987

Editorial 189

Review

A. M. C. Davies and A. Grant
Near infra-red analysis of food 191

R. M. Wood and M. Hasan
Improved heat exchanger networks for energy conservation in palm oil refineries 209

C. Engels, M. Hendrickx and P. Tobback
Limited multilayer desorption of brown, parboiled rice 219

J. M. Aguilera, G. A. Escobar, J. M. del Valle and R. San Martin
Ethanol extraction of red peppers: kinetic studies and microstructure 225

M. H. Gamble, P. Rice and J. D. Selman
Relationship between oil uptake and moisture loss during frying of potato slices from c.v. Record U.K. tubers 233

H. A. Khatchadourian, W. N. Sawaya, M. Ayaz and M. M. Al-Mohammad
Processing date varieties into pickles 243

N. Suzan Kıncal and Çiğdem Giray
Kinetics of ascorbic acid degradation in potato blanching 249

P. D. Warriss, S. N. Brown, M. A. Francombe and J. A. Higgins
Effect of preslaughter fasting on the characteristics of pig livers 255

G. E. Shears, D. A. Ledward and R. J. Neale
Iron complexation to carboxyl groups in a bovine serum albumin digest 265

W. Canet and Margaret A. Hill
Comparison of several blanching methods on the texture and ascorbic acid content of frozen potatoes 273

Th. van den Boomgaard, T. van Vliet and A. C. M. van Hooydonk
Physical stability of chocolate milk 279

J. L. Smart and P. A. J. Rush
In-vitro heat denaturation of *Clostridium botulinum* toxins types A, B and C 293

B. D. Oomah
Characteristics of commercially heat-treated oat groats 299

Technical note

P. E. Pritchard
A small-scale yeasted dough expansion test for the evaluation of breadmaking flours and other bakery ingredients 309

Book reviews 315

Volume 22, Number 4, August 1987

Editorial 333

M. L. Pollio, S. L. Resnik and J. Chirife
Water sorption isotherms of soybean varieties grown in Argentina 335

C. Mohana Das and P. Indrasenan
Determination of iodine-bromine numbers of some edible oils with two N-bromoimides 339

L. Ababouch, L. Chouguer and F. F. Busta
Causes of spoilage of thermally processed fish in Morocco 345

C. J. Kirby, B. E. Brooker and B. A. Law
Accelerated ripening of cheese using liposome-encapsulated enzyme 355

R. J. Steele
Use of polyols to measure equilibrium relative humidity 377

J. Fernández-Salguero and I. M. Mackie
Comparative rates of spoilage of fillets and whole fish during storage of haddock (*Melanogrammus aeglefinus*) and herring (*Clupea harengus*) as determined by the formation of non-volatile amines and volatile amines 385

Patricia H. Moulding, H. F. Grant, K. M. McLellan and D. S. Robinson
Heat stability of soluble and ionically bound peroxidases extracted from apples 391

R. L. McBride and R. L. Johnson
Perception of sugar-acid mixtures in lemon juice drink 399

Technical notes

J. Fernández-Salguero and I. M. Mackie
Preliminary survey of the content of histamine and other higher amines in some samples of Spanish canned fish 409

N. Kondaiah and B. Panda
Effect of hot and cold boning of spent hens on carcass components and functional properties of the frozen meat 413

Helen P. Everson and J. D. Geeson
Effect of packaging methods on quality of mangetout peas during shelf life 417

Book reviews 423

Volume 22, Number 5, October 1987

Editorial 431

Review

B. L. Wedzicha
Chemistry of sulphur dioxide in vegetable dehydration 433

Helena T. Godoy and Delia B. Rodriguez-Amaya
Changes in individual carotenoids on processing and storage of mango (*Mangifera indica*) slices and purée 451

G. R. Nute, R. C. D. Jones, E. Dransfield and O. P. Whelehan
Sensory characteristics of ham and their relationships with composition, visco-elasticity and strength 461

C. G. Oates, D. A. Ledward, J. R. Mitchell and I. Hodgson
Glutamic acid reactivity in heated protein and protein-alginate mixtures 477

Z. Palacha and J. M. Flink
Revised PEC method for measuring water activity 485

D. J. McClements and M. J. W. Povey
Solid fat content determination using ultrasonic velocity measurements 491

J. T. Richards and F. A. Adams
Study of reaction rates of the antioxidants gallic acid, BHT and BHA using the technique of pulse radiolysis 501

R. I. Perez Martin, J. M. Franco, P. Molist and J. M. Gallardo
Gas chromatographic method of the determination of volatile amines in seafoods 509

D. O'Beirne and Alison Ballantyne
Some effects of modified-atmosphere packaging and vacuum packaging in combination with antioxidants on quality and storage life of chilled potato strips 515

L. Alonzo, M. Juárez, M. Ramos and P. J. Martín-Alvarez
Effects of changes during ripening and frozen storage on the physicochemical and sensory characteristics of Cabrales cheeses 525

M. H. Gamble and P. Rice
Effect of pre-fry drying of oil uptake and distribution in potato crisp manufacture 535

R. Guzman-Tello and J. C. Cheftel
Thiamine destruction during extrusion cooking as an indicator of the intensity of thermal processing 549

Technical notes

T. H. Lilley
Criticism of a proposed corrected form of the Ross equation and a suggested extension of the equation 563

S. Godavari Bai
Effect of calcium and magnesium impurities in common salt on the carotenoid pigments in canned prawns 569

C. K. Wilkins
Improved separations of beet pigments 571

Book reviews 575

Letter to the Editor 587

Volume 22, Number 6, December 1987

Editorial 589

H Salovaara and T. Valjakka
The effect of fermentation temperature, flour type, and starter on the properties of sour wheat bread 591

K. S. Burton, C. E. Frost and P. T. Atkey
Effect of vacuum cooling on mushroom browning 599

F. Zuber, D. Mégard and J. C. Cheftel
Continuous emulsification and gelation of dairy ingredients by HTST extrusion cooking: production of processed cheeses 607

A. Tunaley, D. M. H. Thomson and J. A. McEwan
Determination of equi-sweet concentrations of nine sweeteners using a relative rating technique 627

R. W. H. Parry, M. V. Alcasid and E. B. Panggat
Cold shock in fish: its characteristics in bighead 637

B. L. Wedzicha and M. T. Kaputo
Reaction of melanoidins with sulphur dioxide: stoichiometry of the reaction 643

B. L. Wedzicha, S. Goddard and D. N. Garner
Enzymic browning of sulphocatechol 653

J. D. Geeson, S. M. Smith, Helen P. Everson. Pia M. Genge and K. M. Browne
Responses of CA-stored Bramley's Seedling and Cox's Orange Pippin apples to modified atmosphere retail packaging 659

C. Hunt, P. Burn and Z. C. Adamczuk
Proximal composition and fat type of three popular take-away meals 669

N. Paster, S. Gagel and M. Menasherov
Pecan quality after harvesting and moulding of different varieties stored at high relative humidity 677

R. I. Richardson and J. M. Jones
The effects of salt concentration and pH upon water-binding, water-holding and protein extractability of turkey meat 683

U. Hellemann, H. Tuorila, H. Salovaara and L. Tarkkonen
Sensory profiling and multidimensional scaling of selected Finnish rye breads 693

R. J. Aguerre, J. F. Gabitto and J. Chirife
Shape factors for the analysis of diffusion in air drying of grains 701

K. Koide and M. Karel
Encapsulation and stimulated release of enzymes using lecithin vesicles 707

Book reviews 725